Adipic Acid Production

Proposed Rule: Mandatory Reporting of Greenhouse Gases

United States Environmental Protection Agency

Under the proposed Mandatory Reporting of Greenhouse Gases (GHGs) rule, owners or operators of facilities that contain adipic acid production (as defined below) would report emissions from adipic acid production processes and all other source categories located at the facility for which methods are defined in the rule. Owners or operators would collect emission data; calculate GHG emissions; and follow the specified procedures for quality assurance, missing data, recordkeeping, and reporting.

How Is This Source Category Defined?

Under the proposal, the adipic acid production source category consists of all processes that use oxidation to produce adipic acid.

What GHGs Would Be Reported?

The proposal calls for adipic acid production facilities to report nitrous oxide (N_2O) process emissions from adipic acid production.

In addition, each facility would report GHG emissions for other source categories for which calculation methods are provided in the rule. For example, facilities would report carbon dioxide (CO_2), N_2O, and methane (CH_4) emissions from each stationary combustion unit on site by following the requirements of 40 CFR part 98, subpart C (General Stationary Fuel Combustion Sources). Please refer to the relevant information sheet for a summary of the proposal for calculating and reporting emissions from any other source categories at the facility.

How Would GHG Emissions Be Calculated?

Under the proposal, N_2O process emissions from adipic acid production would be calculated by multiplying a facility-specific emission factor by the annual adipic acid production level. The facility-specific emission factor would be determined by an annual performance test to measure N_2O emissions from the waste gas stream of each oxidation process and the production rate recorded during the test.

When N_2O abatement devices (such as nonselective catalytic reduction) are used, the N_2O process emissions would be adjusted for the amount of N_2O removed using a destruction factor for the control device and the percent of time the control device operated. The destruction factor is the destruction efficiency specified by the abatement device manufacturer.

What Information Would Be Reported?

In addition to the information required by the General Provisions at 40 CFR 98.3(c), the proposal calls for an adipic acid production facility to report the following information at the facility level:

- Annual N_2O emissions

- Annual adipic acid production capacity
- Annual adipic acid production
- Number of operating hours in the calendar year
- The site-specific emission factor
- Type of abatement device used and its destruction efficiency
- The percent of time the abatement device operated during the calendar year

For More Information

This series of information sheets is intended to assist reporting facilities/owners in understanding key provisions of the proposed rule. However, these information sheets are not intended to be a substitution for the rule. Visit EPA's Web site (www.epa.gov/climatechange/emissions/ghgrulemaking.html) for more information, including the proposed preamble and rule and additional information sheets on specific industries, or go to <www.regulations.gov> to access the rulemaking docket (EPA-HQ OAR-2008-0508). For questions that cannot be answered through the Web site or docket, call 1-877-GHG-1188.